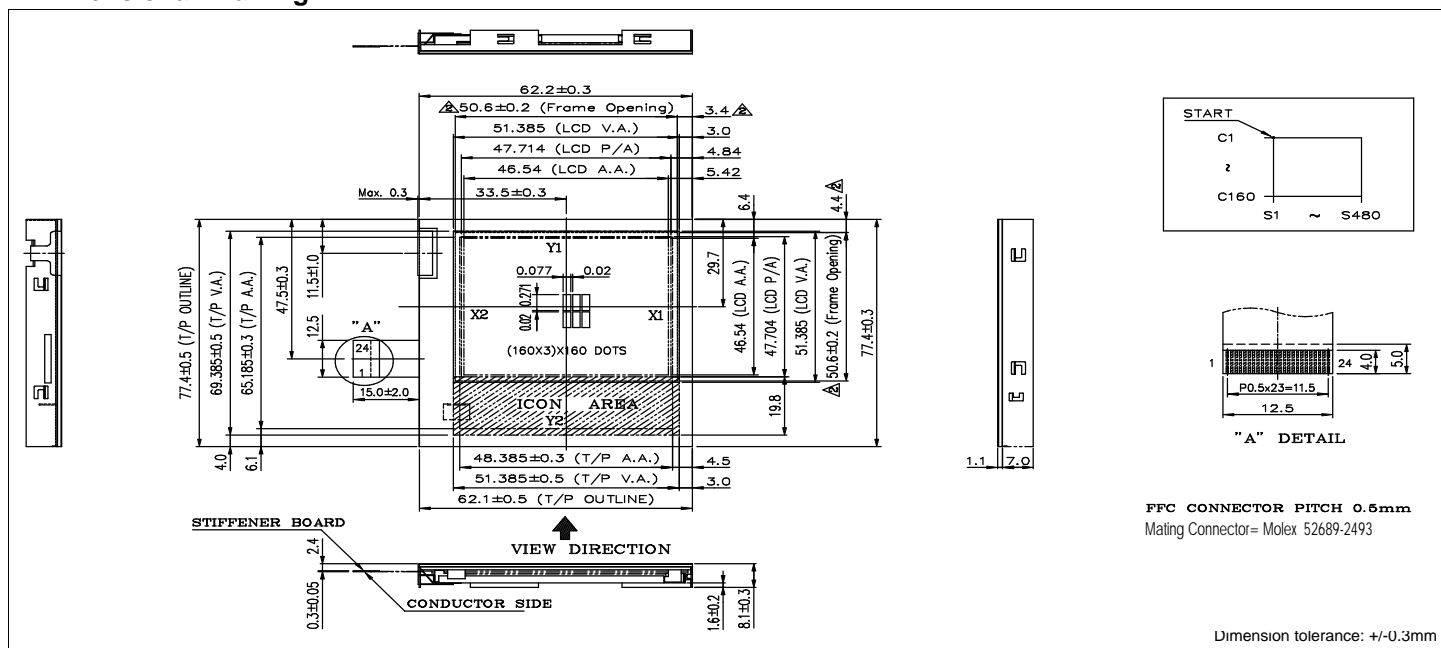


# HDM 160GS16C

## Dimensional Drawing

160 X 160 Dots Color Graphic, Low Power w/Touch Screen



Dimension tolerance: +/-0.3mm

### Features

- Backlight.....White LED
- Options.....Color STN Touch Screen
- Built-in Controller.....None

### Physical Data

- Module Size.....62.2W x 77.4H x 8.1T mm
- Viewing Area Size.....51.385W x 51.385H mm
- Dot Pitch.....0.077W x 0.271H mm
- Dot Size.....0.097W x 0.291H mm
- Weight.....47.4g

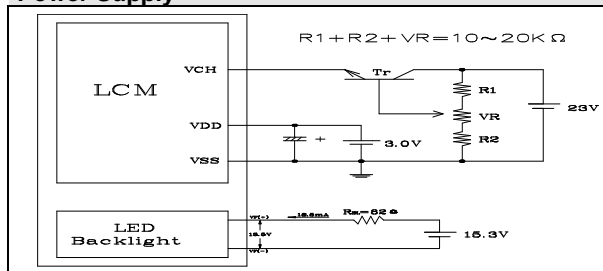
### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	7.0	V
LCD VOLTAGE	V <sub>CH</sub> -V <sub>SS</sub>	0	25.0	V
OPERATING TEMPERATURE	T <sub>OP</sub>	0	50	°C
STORAGE TEMPERATURE	T <sub>STG</sub>	-20	70	°C
LED Reverse Voltage	V <sub>R</sub>	-	-16	V
LED Peak Forward Current	I <sub>p</sub>	-	25	mA

### Pin Connections

PIN NO.	SYMBOL	FUNCTION	
1	V <sub>F</sub> (-)	Power Supply for LED Backlight	
2	V <sub>F</sub> (+)	Power Supply for LED Backlight	
3	D0	Data bus	
4	D1		
5	D2		
6	D3		
7	D4		
8	D5		
9	D6		
10	D7		
11	V <sub>SS</sub>	0V	Ground
12	V <sub>SS</sub>	0V	Ground
13	CL1	H,H? L	Display data latch clock
14	CL2	H,H? L	Latch Pulse
15	DISP.OFF	H/L	H: ON, L: OFF
16	V <sub>DD</sub>		Power Supply for LOGIC
17	V <sub>DD</sub>		Power Supply for LOGIC
18	M	H/L	AC driving control signal
19	FLM	H	First line marker
20	V <sub>CH</sub>		Power supply for LCD
21	LEFT		Touch Panel Connections
22	UP		
23	RIGHT		
24	DOWN		

### Power Supply



### Electrical Characteristics (V<sub>DD</sub>=3.0±0.3V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	V <sub>DD</sub>	-	2.7	3.0	3.3	V
POWER FOR LCD	V <sub>CH</sub> -V <sub>SS</sub>	-	19.7	21.0	21.7	V
INPUT HIGH VOLTAGE	V <sub>IH</sub>	-	.8V <sub>DD</sub>	-	V <sub>DD</sub>	V
INPUT LOW VOLTAGE	V <sub>IL</sub>	-	GND	-	.2V <sub>DD</sub>	V
POWER SUPPLY CURRENT	I <sub>DD</sub>	V <sub>DD</sub> =3.0V	-	1.0	1.5	mA
	I <sub>CH</sub>	FLM=70Hz	-	0.1	0.15	mA
LED FORWARD VOLTAGE	V <sub>F</sub>	-	-	13.5	-	V
LED FORWARD CURRENT	I <sub>F</sub>	-	-	18.5	-	mA
BRIGHTNESS	L	All Dots On	-	36.2	-	cd/m <sup>2</sup>
DRIVE METHOD			1/160 Duty			